comprising [The method of claim 2 wherein said plurality of satellites comprises at least four GPS satellites and said data related to propagation time differences comprises] code word phase measurements μ_i for a satellite at a time t_R, where $\mu_i = \gamma_i / T_i^c$, and defined as time elapsed to time t_R from the beginning of a code word in the signal from satellite i in which t_R falls, T_i^c being defined as the code period for satellite i at time t_R in the signal received from satellite i, said code word phase measurements being simultaneously derived from the signals transmitted from said plurality of satellites and received at the object to be tracked;

transmitting said data to a central station; and

calculating at said central station the location of said object to be tracked based upon the transmitted data and data derived from at least one receiver apart from said object to be tracked receiving said signals from said plurality of satellites.

5 ~~4.~~(amended) A method for identifying location of an object to be tracked, comprising:

measuring data related to propagation time differences between signals transmitted from a plurality of GPS satellites and received at said object to be tracked, said data comprising [The method of claim 2 wherein said plurality of satellites comprises at least four GPS satellites and said data related to propagation time differences comprises] bit phase measurements μ_i for a satellite i at a time t_R, where $\mu_i = \beta_i / T_i^B$, β_i being the receiver bit-time offset for satellite i and defined as time elapsed to time t_R from the beginning of a code word in the signal from satellite i in which t_R falls, T_i^B being defined as the bit period for satellite i at time t_R in the signal received from satellite i, said bit phase measurements being simultaneously derived from the signals transmitted from said plurality of satellites and received at the object to be tracked;

transmitting said data to a central station; and

calculating at said central station the location of said object to be tracked based upon the transmitted data and data derived from at least one receiver apart from said object to be tracked receiving said signals from said plurality of satellites.

Claim 5, line 1, change "1" to –3--.

11 ~~6.~~(amended) A method for identifying location of an object to be tracked, comprising:

measuring data related to propagation time differences between signals transmitted from a plurality of satellites and received at said object to be tracked, said data comprising [The method of claim 1 wherein said data comprise] receiver code-time offsets for a

satellite i and defined as time elapsed to a time t_R from the beginning of a code word in the signal from satellite i in which t_R falls, and code periods in the signal received from satellite i in which time t_R falls, said plurality of satellites comprising GPS satellites, and including the additional step of simultaneously deriving said receiver code-time offsets and code periods from signals received from the plurality of satellites at said object to be tracked;

transmitting said data to a central station; and

calculating at said central station the location of said object to be tracked based upon the transmitted data and data derived from at least one receiver apart from said object to be tracked receiving said signals from said plurality of satellites.

Claim 11, line 1, change "1" to –3--.

12. ~~9.~~(amended) A method for identifying location of an object to be tracked, comprising:

measuring data related to propagation time differences between signals transmitted from at least four GPS satellites and received at said object to be tracked, said data related to propagation time differences comprising bit phase measurements simultaneously derived from said signals;

transmitting said data, including satellite identification data, to a central station;

measuring, at said object to be tracked, delay between the time at which the data are recorded and the time when the data are transmitted to the central station;

transmitting the measured delay to said central station; and

calculating at said central station the location of said object to be tracked based upon the transmitted data, the satellite identification data, and data derived from at least one receiver apart from said object to be tracked receiving said signals from said plurality of satellites, the calculating step comprising:

[The method of claim 8 including the additional steps of:]

assuming a feasible value for a communication time delay required for a signal transmitted from said object to be tracked to reach the central station;

calculating the location of said object to be tracked based upon the satellite identification data and the assumed value of said communication time delay;

calculating a new value for said communication time delay based upon the calculated location of said object to be tracked; and

calculating a corrected location of said object to be tracked based upon the calculated new value for said communication time delay.

14.(amended) A system for identifying location of an object to be tracked,

comprising:

means for measuring data related to propagation time differences between signals transmitted from a plurality of GPS satellites and received at said object to be tracked, each of said signals identifying an associated satellite, said object to be tracked including:

receiver means for receiving signals from at least four GPS satellites; and

first processor means for processing data from the receiver means [The system of claim 13 wherein said first processor means comprises means for processing said data] at predetermined time intervals in synchronism with received signal events, said data being related to propagation time differences for said signals;

receiver means apart from said object for receiving said signals transmitted from said plurality of satellites;

a central station for calculating the location of said object based upon the measured data, data derived from said receiver means apart from said object, and the satellite identification data; and

transmission means for transmitting the processed data to said central station;

said system further including:

second processor means at said central station for determining the location of said object based on the data received from said transmission means and data derived from said receiver means apart from said object.

Claim ~~16~~, line ~~1~~, change "15" to –14--.

~~18~~.(amended) A method for identifying location of an object to be tracked comprising:

means for measuring data related to propagation time differences between signals transmitted from a plurality of GPS satellites and received at said object to be tracked, each of said signals identifying an associated satellite, [The system of claim 12 wherein said satellites are GPS satellites and wherein] said object to be tracked [includes]including:

receiver means [located with said object] for receiving signals from at least four GPS satellites; and

first processor means for calculating a receiver bit phase for each of said satellites[, and], said bit phase for any satellite i at a time t_R being defined as β_i / T_i^B, β_i being the receiver bit-time offset for satellite i and defined as time elapsed to time t_R from the beginning of a code word in the signal from satellite i in which t_R falls, and T_i^B being defined as the bit period for satellite i at time t_R in the signal received from satellite i;

receiver means apart from said object for receiving said signals from said

plurality of satellites;

a central station; and

transmission means for transmitting the calculated bit phases to said central station;

said system further including:

second processor means at said central station for determining signal propagation times between said plurality of satellites and said object and for determining location of said object based upon the bit phases transmitted by said transmission means and data derived from said receiver means apart from said object.

18 ~~19.~~(amended) A system for identifying location of an object to be tracked, comprising:

means for measuring data related to propagation time differences between signals transmitted from a plurality of GPS satellites and received at said object to be tracked, each of said signals identifying an associated satellite, [The system of claim 12 wherein said satellites are GPS satellites and wherein] said object to be tracked [includes]including:

receiver means [located with said object] for receiving signals from at least four GPS satellites, and

first processor means for calculating a bit-time offset for each of said satellites and for determining a bit period for each signal received from said satellites, said bit-time offset for a satellite i being defined as time elapsed to a time t_R from the beginning of a code word in the signal from satellite i in which t_R falls, said bit period for satellite i being determined at time t_R in the signal from satellite i [and];

receiver means apart from said object for receiving said signals from said plurality of satellites;

a central station; and

transmission means for transmitting time stamps, the calculated bit-time offsets and bit periods, and satellite identification data, to said central station;

said system further including:

second processor means at said central station for determining signal propagation times between said plurality of satellites and said object and for determining location of said object based upon the bit-time offsets and periods, time stamps, satellite identification data transmitted by said transmission means, and data derived from said receiver means apart from said object.

Please add the following claims: